

Sir William Goodman Bridge



Adelaide's Electric Tramways

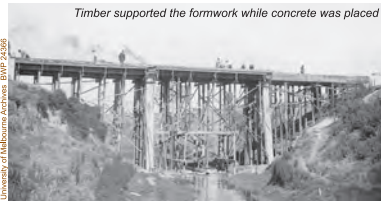
In 1906 the **Municipal Tramways Trust** was formed. Its purpose was to convert the horse tram network (which began operating in 1878) to an electric system and to extend the service to all suburbs within 10 miles of the Adelaide GPO.

To reach the suburb of Hindmarsh, the tramway had to cross the River Torrens and a location in line with Holland Street was chosen. The bridge was finished before the electric system was ready and a horse tram service was provided from June 1909. The electric service began on 9 March 1910.



Type E-1 tram No 111 crosses the bridge in 1953

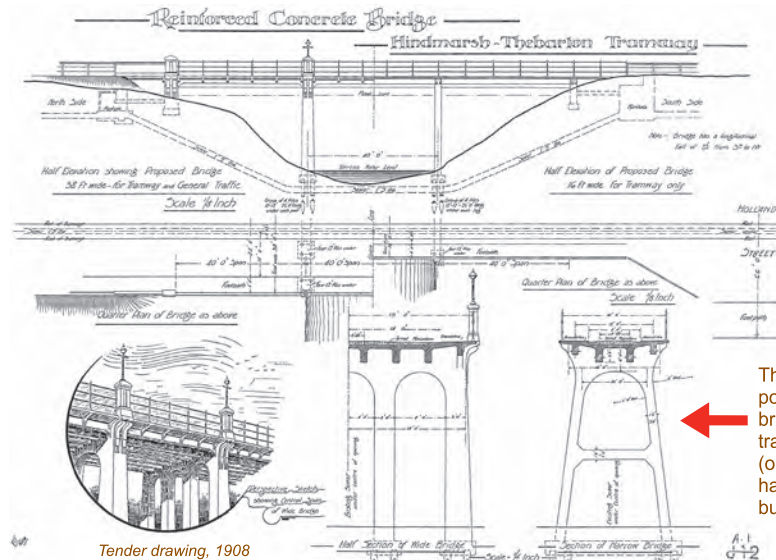
Concrete Construction



The MTT wanted a concrete arch bridge but John Monash was able to show that long beams supported by trestle structures was a better design. This was the approach used in a railway bridge he built at Victor Harbor in 1908, the first such structure in Australia.

The bridge was built by the SA Reinforced Concrete Co. Concrete piles were driven into the river bed to support the trestles and timber formwork was erected. Concrete was mixed by hand and carried in wheelbarrows. The bridge was completed in 13 weeks.

The bridge carried a single tram line. However, the demand for the tram service grew rapidly. In 1923 a second bridge of the same design was built at Cawthorne Street, 100 metres east. Diesel buses replaced trams in 1953 and the bridges were used by road traffic from 1962. Cawthorne Street was closed in 1966 and later demolished; Holland Street was closed in 1990.



This drawing shows two possible designs for a bridge to carry a single tram track – the wide one (only half was drawn) could have carried other traffic but was too expensive.

The original tramways bridge was never named nor formally opened. Now, following its reconstruction and reopening, it has been named after Sir William Goodman.

To find out more ...

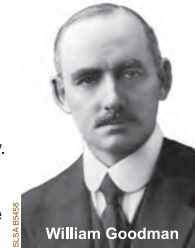


Reinforcement after treatment and before new reinforcement and concrete were added



Castings

The iron handrails on the bridge were cast in the Hindley Street foundry of A C Harley. Most have been restored and refitted. Damaged posts have been replaced with replica castings.



William Goodman



John Monash

Sir William Goodman (1872 - 1961)

William George Toop Goodman was the first Chief Engineer and General Manager of the Municipal Tramways Trust. Before coming to Adelaide, he had extensive experience with electric tramways in Tasmania, New South Wales, and New Zealand. In 1929 he converted the Adelaide to Glenelg railway to the electric tramway which still runs today.

General Sir John Monash (1865 - 1931)

John Monash had a successful career as a civil engineer and lawyer in Victoria which began in 1894. In 1905 he started the SA Reinforced Concrete Company to introduce the new construction material to this state. Following a brilliant military career in World War I, Monash became Chairman of the State Electricity Commission of Victoria.



Adelaide's first reinforced concrete bridge was reopened on 13 September 2014
Engineers Australia – City of Charles Sturt – City of West Torrens – Government of SA

www.engineeringheritage.com.au